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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,074	10/20/2000	Rebecca J. Jackman	H0498/7085 TJO	2002

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Timothy J. Oyer
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210

EXAMINER	
PARKER, FREDERICK JOHN	
ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/694,074	JACKMAN ET AL.	
	Examiner	Art Unit	
	Frederick J. Parker	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *51-62 and 91-100* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *51-62 and 91-100* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/04
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 51 is rejected under 35 U.S.C. 102(b) as being anticipated by Harrison et al.

Harrison et al is cited for the same reasons previously discussed, which are incorporated herein. Applicants have amended the claim to cite "a biological agent". Harrison teaches on col. 6, 27-31 that the invention can be used for binding proteins (clearly a biological agent, as exemplified by Applicants on spec. page 17) and other molecules on defined sites. Hence the amendment fails to overcome the prior art.

Applicants argue the mask layer of Harrison is degraded after the polymer contacts the substrate and there "appears to be evidence...the polymeric mask of Harrison has been degraded after being placed in conformal contact with the surface". Applicants therefore acknowledge conformal contact occurs, to which the Examiner agrees. However, the Examiner strongly disagrees with Applicants assertion that Harrison teaches away from claim 51. Reconsideration of step 1 of claim 51 reveals it requires (abbreviated for sake of ease of understanding):

"shielding a first portion,...,of a surface of an article with a polymeric mask including...one channel that defines a second portion of the surface of the article that remains unshielded by the mask, by positioning the mask....with the surface without degrading a portion of the mask proximate the second portion of the substrate".

The Examiner respectfully points out the claim requires a second portion of the article surface which in essence is the channel/ the open or unshielded portion of the mask layer. That is, the second portion is formed only once the opening of the mask is formed. Harrison does not teach, suggest, or imply degradation occurs to the mask portions proximate to these open portions of the mask, nor mask portions adjacent/ proximate the second (exposed) portion of the article surface. Thus, Applicants' interpretation of the reference and claim is incorrect and the argument is not persuasive. The rejection of claim 51 is accordingly maintained.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 52,91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison et al.

Harrison et al is cited for the same reasons previously discussed, which are incorporated herein. Harrison teaches on col. 6, 27-31 that the invention can be used for binding proteins (clearly a biological agent, per Spec. page 17, 30) and other molecules on defined sites. Hence the new claim 91 fails to overcome the prior art. Applicants simply argue that the Examiner's position that applying the flexible polymeric coating material to a non-planar surface due to its ability to conform to any surface is "hindsight reasoning". Applicants supply no persuasive reasoning or evidence for support.

It is well-settled that an artisan must be presumed to know something apart from what the references teach, In re Jacoby 135 USPQ 317; and that the conclusion of obviousness may be

made from "common knowledge and common sense" of the skilled artisan, In re Bozek 163 USPQ 545. There is no hint of hindsight in this case, but rather simply obviousness to one of ordinary skill, Applicants failing to provide supporting evidence to the contrary. The rejection of claim 52 is accordingly maintained.

5. Claims 92-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rustomji US 4511599 in view of Smith US 4119745. (The relationship of these new claims to previous claims 54,55,57-62 were discussed in Applicants' Response).

Rustomji teaches a method for forming thin-film EL panels comprising masking a surface with a thin flexible steel mask, the mask having open (second portions) and reinforcing portions (first portions) including 7-10 mil features (col. 3, 31-34) which are "less than 1 mm", the openings defining electrodes; holding the mask flush and magnetically adhered to the substrate ("conformal contact"); and depositing metal vapor ("an agent" given the conventional meaning of "a force or substance that causes change" (Webster's Collegiate Dictionary, 1994) since the metal vapor causes a change by forming a selective coating, as well as Applicants' own definition on Spec. page 16, 20-21) through openings to form the electrodes for an EL device. No degradation of the mask is cited, not can any occur without departing from the spirit and intent of the reference. Rustomji further discloses the method comprises after first film deposition, shifting and re-orienting the mask relative to the metal deposition, to a second position where a second deposition is made holding the mask to the substrate, such that portions of the substrate previously covered are now coated. The first portion is unshielded. Rustomji teaches forming metal electrodes by vapor deposition without limitation as to number of coating agents applied to form the electrodes. Since electrodes are commonly formed of plural

conductive materials, dependant on their intended function, it is the Examiner's position that the use of plural coating agents applied on a substrate would have been within the purview of one skilled in the art, per claim 100. Use of a polymeric masking system and moving masks are not taught.

Smith et al teaches a method for forming EL display devices in which electrodes are deposited using shadow mask patterning means having apertures through which electrode material is deposited using first and second superimposed masks (per claims 92-95), to form perpendicular patterns as shown in figure 1. Thus, Rustomji and Smith e al relate to the same subject matter, namely forming electrodes on substrates by deposition through masking means. While Rustomji is directed to flexible metal masks, col. 3, 24-43 of Smith et al teaches the use of masks "of any suitable material" including of polymer resin (e.g. polyvinyl chloride, & encompassing an elastomeric polymer, per claim 97) masking materials as suitable, so that the use of any one would have been expected to provide equivalent outcomes. Both flexible metals and polymers would have made conformal contact with substrate surfaces because of their pliability/ flexibility, including substrates which are non-planar.

Smith discloses forming electrodes for EL devices in which first and second overlaying masks are adhesively secured to a substrate ("conformal contact"), the first mask disposed against the substrate. The masks are disposed so mask apertures are aligned, and depositing coating material through the apertures. Masks may be plastic/ polymeric. Removal of the top mask, followed by forming an additional electrode is further disclosed per claim 98. Removing and replacing sets of masks to form electrode patterns across a surface, per claim 99, would have been an obvious

variation within the purview of the skilled artisan in view of the combination of references, particularly the shifting and reorientation of masks as taught by Rustomji.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rustomji by utilizing plural, successive masks of suitable materials, such as polymeric materials, as disclosed by Smith for an EL electrode forming process because of the expectation of forming complex electrode patterns on EL substrates.

6. Claim 53-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rustomji in view of Smith US 4119745 and further in view of Allinikov US 4097776.

Rustomji and Smith are cited for the same reasons previously discussed, which are incorporated herein. A biological agent applied after re-placing the mask is not disclosed.

Allinikov teaches forming EL devices, including the formation of electrodes by vapor deposition of a metal such as oxides or salts of cadmium, indium, etc. See col. 5, 11-15. Thus, Allinikov teaches alternate electrode materials which would be applied to form EL devices using vapor means, and it would have been obvious to apply such metals in vapor form using the method of Rustomji in view of Smith to provide the benefits of forming complex electrode patterns on EL devices.

The Examiner takes Official Notice that at least cadmium oxide is a biological agent as broadly used by Applicants because cadmium oxide is inherently a poison, carcinogen, and causes lung and kidney damage, hence its deleterious effects make it a "biological agent". Applicants claim 53 fails to define the nature of the biological agent (e.g. organic, inorganic, function of agent, etc) so that the materials of Allinikov simply read on the limitation.

RESPONSE TO REMARKS

Applicants remaining claims 51-62 are rejected above as necessitated by amendment, so that rebuttal of remarks related to previous rejections is moot. Germane points are incorporated into the rejections. New claims 91-100 are rejected as discussed above.

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 571/272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp